

ABSTRACT OF THE DISCLOSURE

Disclosed herein is a magnetic powder which can provide magnets having excellent magnetic properties and having excellent reliability especially excellent heat stability. The magnetic powder is composed of an alloy composition represented by  $R_x(Fe_{1-a}Co_a)_{100-x-y-z}B_yM_z$  (where R is at least one kind of rare-earth element excepting Dy, M is at least one kind of element selected from Ti, Cr, Nb, V, Mo, Hf, W, Mn, Zr and Dy, x is 7.1 - 9.9at%, y is 4.6 - 8.0at%, z is 0.1 - 3.0at%, and a is 0 - 0.30), and the magnetic powder being constituted from a composite structure having a soft magnetic phase and a hard magnetic phase, wherein when the magnetic powder is mixed with a binding resin and then the mixture is subjected to injection molding or extrusion molding to form a bonded magnet having a density  $\rho$  [Mg/m<sup>3</sup>], the maximum magnetic energy product  $(BH)_{max}$  [kJ/m<sup>3</sup>] of the bonded magnet at a room temperature satisfies the relationship represented by the formula  $(BH)_{max}/\rho^2 [\times 10^{-9} J \cdot m^3 / g^2] \geq 2.10$ , and the intrinsic coercive force  $H_{CJ}$  of the bonded magnet at a room temperature is in the range of 400 - 760 kA/m.